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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,540	12/20/2001	Dongzhi Jin	NAGAT42.001AUS	4722

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EXAMINER

MARTIR, LILYBETT

ART UNIT	PAPER NUMBER
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2855

DATE MAILED: 09/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/029,540

Applicant(s)

JIN ET AL.

Examiner

Lilybett Martir

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 5-8 is/are rejected.
- 7) ☒ Claim(s) 3 and 4 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 5-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Setaka et al. (Pat. 4,881,414).

- With respect to claim 1, Setaka et al. teaches a cylindrical first rotor as in element 11 made of a magnetic material having conductor layers as in 11a-11c and being attached to a first rotating shaft 1, a fixed core 29 having an exciting coil 17a fixed to a fixing member (Col. 4, lines 12-13, Col. 5, lines 10-12), a second rotor having nonmagnetic metal bodies 16 arranged circumferentially to oppose conductor layers 11a-11c, the second rotor being attached to a second shaft and being located between the first rotor 11 and the fixed core 29 as noted in Figure 1, and oscillating means 33 connected to the exciting coil 17a as noted in Figure 12, and further comprising rotation guides as in elements 7-8 for guiding the rotation of the first and second rotors 11 and 12 with respect to the fixed core 29 as noted in Figure 1.
- With respect to claim 5, Setaka et al. teaches rotation guides being bearings as in elements 7 and 8 being interposed between the first rotor 11 and the

core 29, and between the second rotor 12 and the core 29 as noted in Figure 1.

- With respect to claim 6, Setaka et al. teaches a fixed core 29 containing an exciting coil 17a in a core body as noted in Figure 1.
- With respect to claim 7, Setaka et al. teaches a fixed core 29 containing two exciting coils as in elements 17a and 18a.

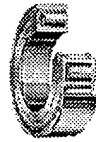
Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Setaka et al. in view of Fehr et al. (Pat. 3,890,515).

- With respect to claim 2, Setaka et al. fails to teach the utilization of rotation guides which are guide rings. Fehr et al. teaches a rotary shaft arrangement where guide rings as in elements 1b (See the illustration provided bellow) are utilized. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the teachings of the torque detection apparatus of Setaka et al. utilizing the teachings of Fehr et al. by providing it with guide rings in order to provide rotation facilitating means which can handle much greater loads than the commonly used ball bearings to therefore make said apparatus more efficient and durable.



Cutaway view of Roller bearing such as the one taught in Figure 1 of Fehr et al.

5. Claims 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Setaka et al. in view of Reich (Pat. 4,412,198).

- With respect to claim 8, Setaka et al. fails to teach the utilization of a case for the fixed core that shields an alternate current magnetic field. Reich teaches a rotary transformer arrangement where he uses a case for the fixed core that shields an alternate current magnetic field by being made of an insulator (Col. 3, lines 61-65). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the teachings of the torque detection apparatus of Setaka et al. utilizing the teachings of Reich by providing said apparatus with a case for the fixed core that shields an alternate current magnetic field to therefore prevent cross talk and interferences from possible external sources of magnetism therefore making said apparatus more accurate.

Allowable Subject Matter

6. Claims 3-4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, or if the limitations of said claims are incorporated upon the base claim form including all of the limitations of the base claim and any intervening claims.

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Conclusion


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lilybett Martir whose telephone number is (703)305-6900. The examiner can normally be reached on 9:00 AM to 5:30 PM.

8. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on (703)305-4816. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

9. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.



Lilybett Martir
Examiner
Art Unit 2855



EDWARD LEFKOWITZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800